MPT9008PZ/CZ

Coaxitron Switcher/Controller

Installation/Operation Manual

C558M (3/96)

Pelco • 3500 Pelco Way, Clovis, CA 93612-5699 • USA • www.pelco.com
(800) 289-9100 or (1-559) 292-1981 • FAX (800) 289-9150 or (1-559) 292-3827
International Customers: Tel (1-559) 292-1981 or FAX (1-559) 348-1120

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REVISION HISTORY

Manual #	Date	Comments
C558M	3/96	Original version

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INSTALLATION/OPERATION MANUAL
MPT9008PZ/CZ
COAXITRON SWITCHER/CONTROLLER

1.0 WARNINGS

Prior to installation and use of this product, the following WARNINGS should be observed.

1. Installation and servicing should only be done by Qualified Service Personnel and conform to all Local codes.

2. Unless the unit is specifically marked as a NEMA Type 3, 3R, 3S, 4, 4X, 6, or 6P enclosure, it is designed for indoor use only and it must not be installed where exposed to rain and moisture.

3. Only use replacement parts recommended by PELCO.

4. After replacement/repair of this unit's electrical components, conduct a resistance measurement between line and exposed parts to verify the exposed parts have not been connected to line circuitry.

This product may bear the following marks:

This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.

SA 1965

CAUTION:
TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

SA 1966

CAUTION:
RISK OF ELECTRIC SHOCK.
DO NOT OPEN.

Please thoroughly familiarize yourself with the information in this manual prior to installation and operation.

2.0 SCOPE

The information contained within this manual covers the installation and operation of the MPT9008PZ/CZ Coaxitron Switcher/Controller.

Please thoroughly familiarize yourself with the information in this manual prior to installation and operation.

3.0 DESCRIPTION

As the name implies, the MPT9008PZ/CZ Coaxitron Switcher/Controller is a unit that provides both a Controller and Switcher in the same electronics package. (Reference Figure 1.) The integration of these dual functions into one package combines the functionality of the Coaxitron transmitter/controller and the convenience of an 8-input passive switcher with loop-through capabilities. The transmitter/controller provides up to 16 remote control functions without the need for control cables other than for a dedicated video cable for the normal transmission of a remote camera signal to the local monitoring and control position. The MPT9008PZ/CZ lends itself to application in situations where short-to-medium distances are involved.

Typically, these 16 transmitter/control functions can be grouped as follows:

PTZ FUNCTIONS

1. Pan Left
2. Pan Right
3. Tilt Up
4. Tilt Down
5. Zoom In
6. Zoom Out
7. Focus Near
8. Focus Far

CAMERA/LENS FUNCTIONS

9. Iris Open
10. Iris Close
11. Camera Power On/Off
12. Auto/Manual Scan

AUXILIARY FUNCTIONS

13. AUX 1 (Manual Iris)
14. AUX 2 (Auto Iris)
15. AUX 3
16. AUX 4

Functions 1 through 10, 15 and 16 are momentary; that is, they are only actuated while the associated control switch located on the Coaxitron Switcher/Controller front panel is operated. Functions 11, 12, 13 and 14 are latching; that is, camera power, auto scan, and auto/manual iris are latching functions and remain on until turned off. The latching iris function is not dedicated, and with proper interfacing, it can be used for some other latching function. Alternately, AUX 1, 2, 3 and 4 may be used as momentary functions to control such things as lights or gates with proper external interfacing. Up to ten functions can be operated simultaneously. Functions 11 through 16 must be used individually; although any one of these functions may be used simultaneously with functions 1 through 10. These control functions are active and control only the camera position that is currently selected by the push buttons (1-8) on the front panel of the unit.

The switcher portion of the MPT9008CZ/PZ provides a convenient, inexpensive and reliable method of switching up to 8 video inputs, one at a time, to a single monitor output. All switching is accomplished utilizing interlocked manual push buttons. The number on each push button corresponds to the video input BNC on the rear of the unit; i.e., push button #1 corresponds to video input #1, etc. When any push button is depressed, the corresponding video input is displayed on the monitor and coax control functions are enabled for that camera position.

Figure 1. MPT9008CZ–Front View

The MPT9008PZ/CZ is shipped with terminated BNC inputs; however, the user can configure the unit for loop-through operation. See Section 4.2 and Figure 3. This makes it possible to loop signals through the MPT9008PZ/CZ switcher/controller to an additional switcher/controller and monitor at a remote location where the signal is terminated. Any switcher can be used at the second location and operate completely independent of the first location.

4.0 INSTALLATION

MPT9008PZ/CZ Switcher/Controllers can be installed in a number of configurations depending on your system requirements. The two basic types of configuration possibilities are shown in Figures 4 and 5, respectively, depending on whether or not the unit is configured as terminating or as loop-through.

4.1 TERMINATING CONFIGURATION

Both models of the switcher/controller are shipped from the factory as homing, terminated units. See section 4.2 for configuring the MPT9008PZ/CZ for loop-through operation.

4.2 NONTERMINATING LOOP-THROUGH CONFIGURATION

To configure the MPT9008PZ/CZ for loop-through operation reference Figure 3 and perform the following steps:

1. Remove power from the unit if not already done.

2. Remove the cover from the unit to expose the BNC inputs located in the left, rear, back panel area.

3. Each BNC's video input has a corresponding, like numbered, front panel push button. Associated with each BNC is a resistor as illustrated in Figure 3. Clip only the leads of those resistors whose video input you wish to configure as being loop-through. Figure 3, for example, shows the resistor lead for video input #1 being clipped.

4. After making the desired changes, replace the cover and resume operation.

NOTE: Looping switcher/controllers do not have internal termination. Inputs must be terminated with 75 ohms by other equipment in the system.

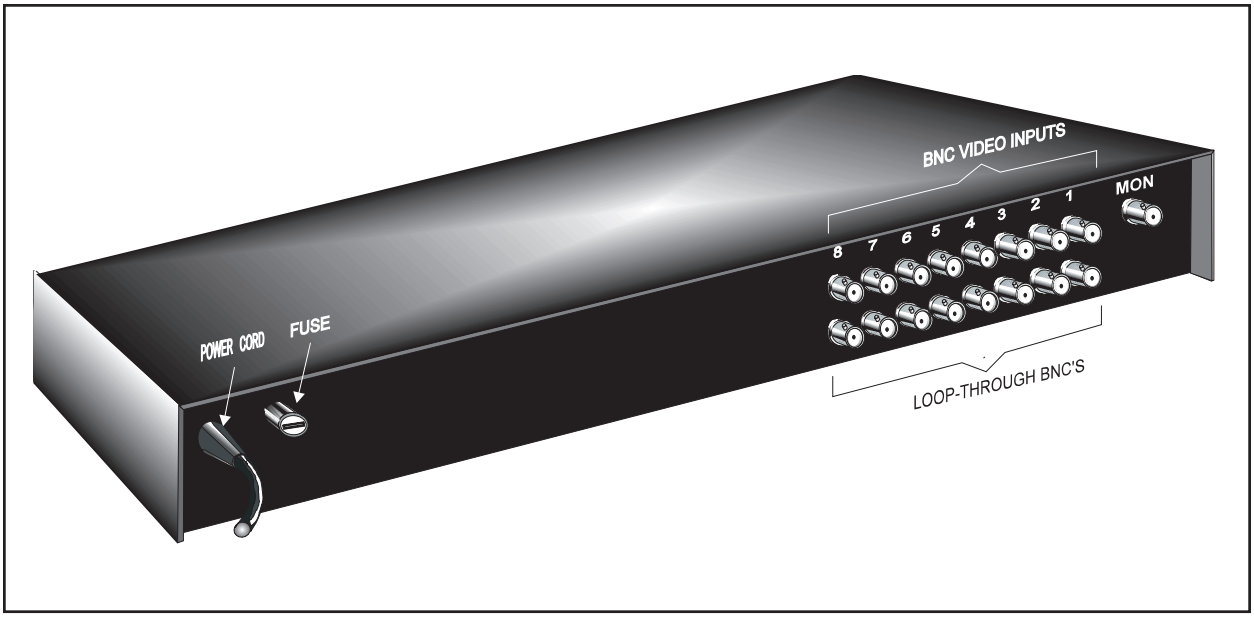

Figure 2. MPT9008CZ–Rear View

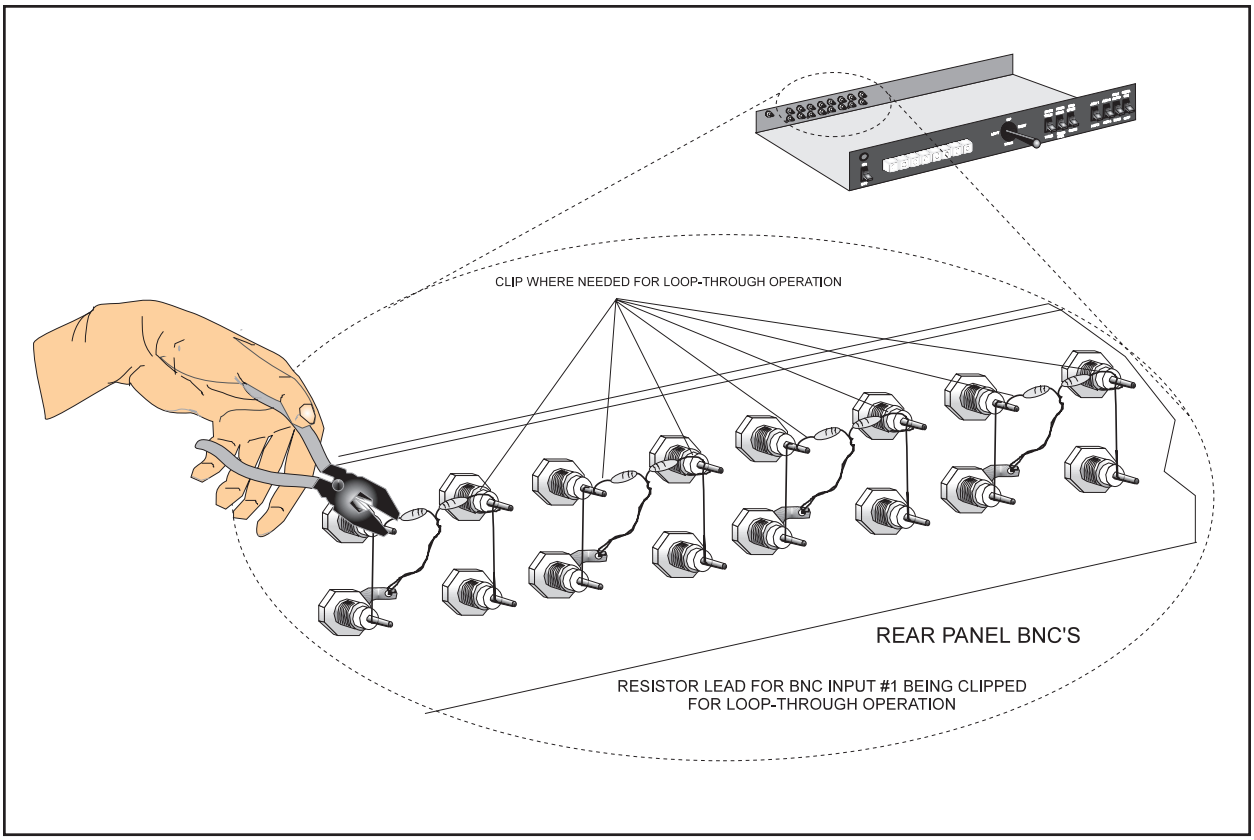
CLIP WHERE NEEDED FOR LOOP-THROUGH OPERATION
REAR PANEL BNC'S
RESISTOR LEAD FOR BNC INPUT #1 BEING CLIPPED
FOR LOOP-THROUGH OPERATION

Figure 3. MPT9008PZ/CZ–Configuring for Loop-Through Operation

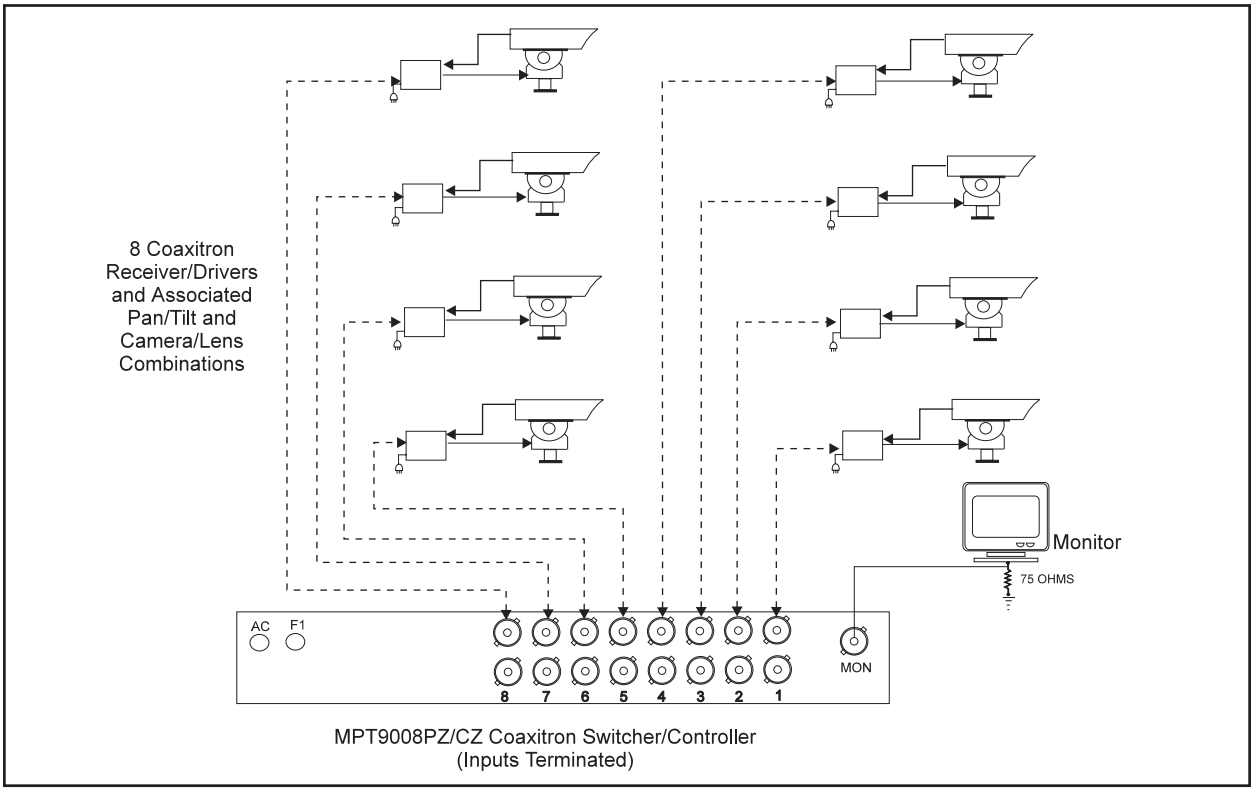

Figure 4. MPT9008PZ/CZ–Homing/Terminating Configuration

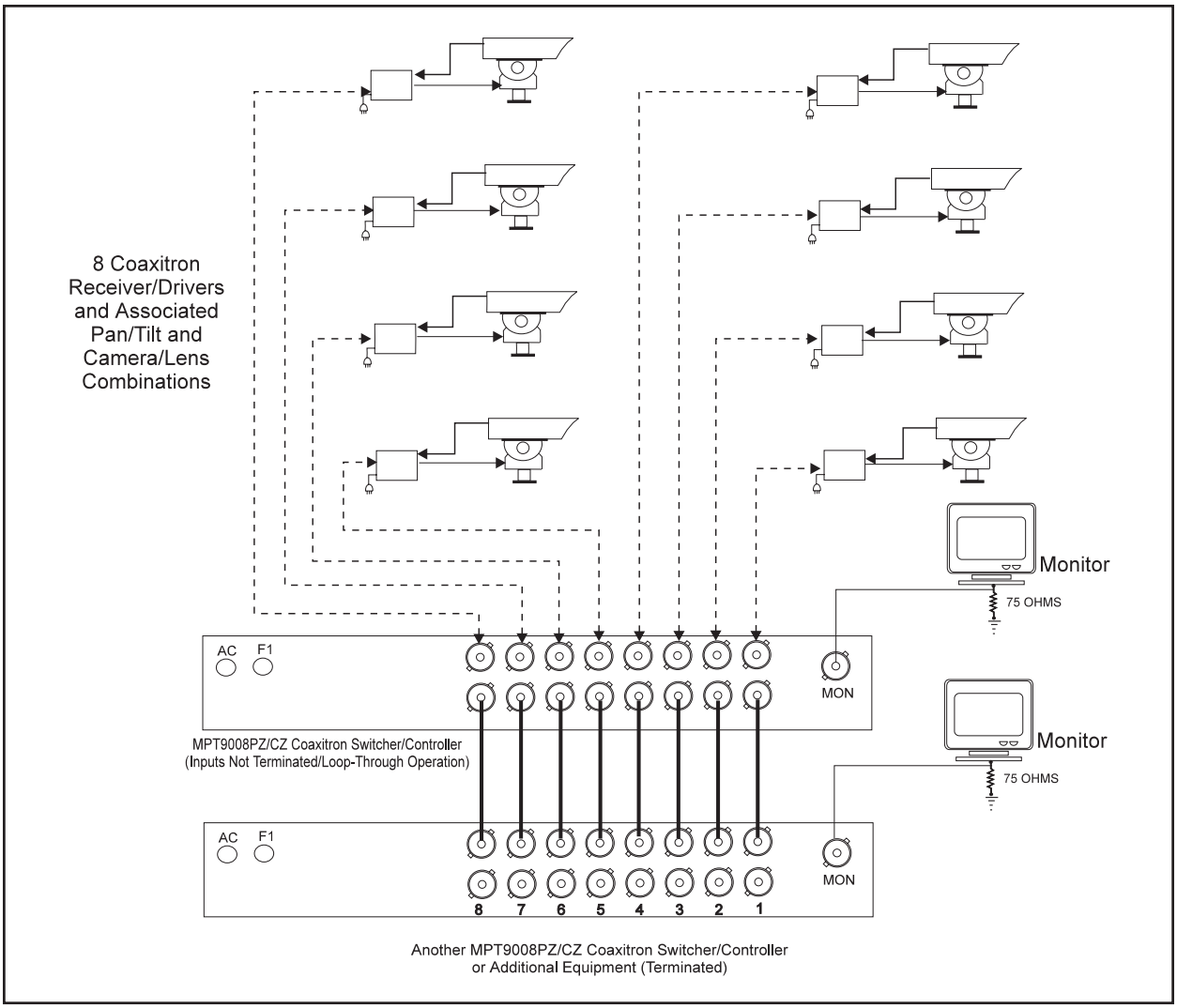

Figure 5. MPT9008PZ/CZ–Homing/Looping Configuration

5.0 OPERATION

In general, all operating controls on the transmitter are self explanatory. With the exception of the ON/OFF power switch and the 8-position joystick, all controls are center-off, spring return paddle switches (momentary on-off-on).

5.1 SWITCHER/CONTROLLER

The transmitter switcher/controller is housed in a 1-3/4" high enclosure, supplied as either a desk top unit (CZ suffix) or as a rack mount unit (PZ suffix). Up to eight video BNC connector inputs are available on the rear of the unit. Any of these video inputs are switch selectable, one at a time, to the available monitor and, while selected, coax control functions for the pan/tilt and camera are enabled.

5.1.1 Controls

Power ON/OFF	Rocker switch
Pan/Tilt	8-position joystick
Zoom	Paddle switch Tele/Wide
Focus	Paddle switch Near/Far
Iris	Paddle switch Open/Close
Aux 1,2	Paddle switch Auto/Manual Iris (latching function)
Camera Power	Paddle switch On/Off (latching function)
Pan Auto/Man	Paddle switch Manual/Auto (latching function)*
Aux 3, 4	Paddle switch (momentary functions)*

*External requirements are needed for operation

6.0 MODELS

MPT9008CZ	Coaxitron Switcher/Controller capable of handling and/or controlling 8 video inputs, one at a time. 120 VAC input.
MPT9008CZ/220	Same as MPT9008CZ except 230 VAC input.
MPT9008PZ	Same as MPT9008CZ except rack-mount.
MPT9008PZ/220	Same as MPT9008PZ except 230 VAC input.

7.0 SPECIFICATIONS

ELECTRICAL

Input Voltage:	120 VAC, 60 Hz or 230 VAC, 50 Hz
Power Consumption:	Transmitter 2.5vA
Control Method:	15-pulse train (pulse width modulated) superimposed on the video signal during the vertical blanking interval by the control transmitter. Pulse train occupies 1 TV line period
Pulse Amplitude:	Approximately 1V p-p added to video signal, 333 kHz nominal
Connectors:	
Control/ Transmitter	16 BNC connectors; 8 for video inputs, 8 for looping outputs
Monitor	1 BNC connector
Input Video Level:	1V p-p nominal; 2V p-p maximum at less than 75% APL; 1.5V p-p maximum at 90% APL
Fuse Protection:	3 AG type: 120VAC, 2/10A, SB 230VAC, 1/10A, SB
Power Cord:	3-wire grounded #18 AWG
Operating Distance:	Cable distances are approximate according to cable type used. 75 ohm coax required.

Cable Type	Distance	Distance Using EA2000
RG59U	750 ft 9229 m)	3,000 ft (914.4 m)
RG6	1,500 ft (457 m)	4,500 ft (1,371.6 m)
RG11	1,800 ft (549 m)	6,000 ft (1,828.8 m)
RG15	—	8,000 ft (2,438.4 m)

GENERAL

Ambient Temperature:	-32°F to +120°F (0°C to +48.89°C)

VIDEO

Inputs:	8 video signal inputs
Video Connectors:	BNC
Termination:	Input—75 ohm internal termination. Loop-through capability via clipped leads

8.0 WARRANTY AND RETURN INFORMATION

WARRANTY

Pelco will repair or replace, without charge, any merchandise proved defective in material or workmanship for a period of one year after the date of shipment.

Exceptions to this warranty are as noted below:

- Five years on FT/FR8000 Series fiber optic products.
- Three years on Genex® Series products (multiplexers, server, and keyboard).
- Three years on Camclosure® and fixed camera models, except the CC3701H-2, CC3701H-2X, CC3751H-2, CC3651H-2X, MC3651H-2, and MC3651H-2X camera models, which have a five-year warranty.
- Two years on standard motorized or fixed focal length lenses.
- Two years on Legacy®, CM6700/CM6800/CM9700 Series matrix, and DF5/DF8 Series fixed dome products.
- Two years on Spectra®, Esprit®, ExSite™, and PS20 scanners, including when used in continuous motion applications.
- Two years on Esprit® and WW5700 Series window wiper (excluding wiper blades).
- Eighteen months on DX Series digital video recorders, NVR300 Series network video recorders, and Endura™ Series distributed network-based video products.
- One year (except video heads) on video cassette recorders (VCRs). Video heads will be covered for a period of six months.
- Six months on all pan and tilts, scanners or preset lenses used in continuous motion applications (that is, preset scan, tour and auto scan modes).

Pelco will warrant all replacement parts and repairs for 90 days from the date of Pelco shipment. All goods requiring warranty repair shall be sent freight prepaid to Pelco, Clovis, California. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Pelco assumes no risk and shall be subject to no liability for damages or loss resulting from the specific use or application made of the Products. Pelco's liability for any claim, whether based on breach of contract, negligence, infringement of any rights of any party or product liability, relating to the Products shall not exceed the price paid by the Dealer to Pelco for such Products. In no event will Pelco be liable for any special, incidental or consequential damages (including loss of use, loss of profit and claims of third parties) however caused, whether by the negligence of Pelco or otherwise.

The above warranty provides the Dealer with specific legal rights. The Dealer may also have additional rights, which are subject to variation from state to state.

If a warranty repair is required, the Dealer must contact Pelco at (800) 289-9100 or (559) 292-1981 to obtain a Repair Authorization number (RA), and provide the following information:

1. Model and serial number
2. Date of shipment, P.O. number, Sales Order number, or Pelco invoice number
3. Details of the defect or problem If there is a dispute regarding the warranty of a product which does not fall under the warranty conditions stated above, please include a written explanation with the product when returned.

Method of return shipment shall be the same or equal to the method by which the item was received by Pelco.

RETURNS

In order to expedite parts returned to the factory for repair or credit, please call the factory at (800) 289-9100 or (559) 292-1981 to obtain an authorization number (CA number if returned for credit, and RA number if returned for repair).

All merchandise returned for credit may be subject to a 20% restocking and refurbishing charge.

Goods returned for repair or credit should be clearly identified with the assigned CA or RA number and freight should be prepaid. Ship to the appropriate address below.

If you are located within the continental U.S., Alaska, Hawaii or Puerto Rico, send goods to:

Service Department
Pelco
3500 Pelco Way
Clovis, CA 93612-5699

If you are located outside the continental U.S., Alaska, Hawaii or Puerto Rico and are instructed to return goods to the USA, you may do one of the following:

If the goods are to be sent by a COURIER SERVICE, send the goods to:

Pelco
3500 Pelco Way
Clovis, CA 93612-5699 USA

If the goods are to be sent by a FREIGHT FORWARDER, send the goods to:

Pelco c/o Expeditors
473 Eccles Avenue
South San Francisco, CA 94080 USA
Phone: 650-737-1700
Fax: 650-737-0933

This equipment contains electrical or electronic components that must be recycled properly to comply with Directive 2002/96/EC of the European Union regarding the disposal of waste electrical and electronic equipment (WEEE). Contact your local dealer for procedures for recycling this equipment.

Pelco
3500 Pelco Way, Clovis, CA 93612-5699
(559) 292-1981 • (800) 289-9100
FAX (800) 289-9150 or (559) 292-3827

(Product specifications subject to change without notice.)

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